<center>**CLAIMS**</center>

<u>What is claimed is:</u>

1.   A computer-aided layout design system, for designing a layout image of at least a portion of a layout, comprising:

     a defect-detecting module, which detects at least one defect of the layout; and

     a zoom-lens module, which generates an enlarged image of the defect, and displays the enlarged image simultaneously with the layout image.

2.   The computer-aided layout design system of claim 1, wherein:

     the layout comprises at least two layers; and

     the zoom-lens module generates the enlarged image of at least one specific layer among the layers.

3.   The computer-aided layout design system of claim 1, wherein:

     the zoom-lens module adjusts an enlarge ratio of the enlarged image relative to the layout image automatically.

4.   The computer-aided layout design system of claim 1, wherein:

     the layout has at least two defects; and

     the zoom-lens module is able to switch between the defects, and generates the enlarged images of the defects.

5.   The computer-aided layout design system of claim 1, further comprising:

     an information-display module, which displays information with respect to the defect while the enlarged image is displaying.

<center>7</center>

6.   A computer-aided layout design method, comprising:

displaying a layout image of at least a portion of a layout;

detecting at least one defect of the layout; and

5   generating an enlarged image of the defect, and displaying the enlarged image simultaneously with the layout image.

7.   The computer-aided layout design method of claim 6, wherein:

the layout comprises at least two layers; and

the generating step further generates the enlarged image of at least one specific
10   layer among the layers..

8.   The computer-aided layout design method of claim 6, wherein:

the generating step further adjusts an enlarge ratio of the enlarged image relative to the layout image automatically.

9.   The computer-aided layout design method of claim 6, wherein:

15   the layout has at least two defects; and

the generating step further switches between the defects, and generates the enlarged images of the defects respectively.

10.   The computer-aided layout design method of claim 6, further comprising:

displaying information with respect to the defect while the enlarged image is
20   displaying.

8